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Y P53706
EXAMINER

MASON, S

ART UNIT PAPER NUMBER

7

2108

DATE MAILED:

03/27/95

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

- ☒ This application has been examined ☐ Responsive to communication filed on _____ ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), _____ days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input checked="" type="checkbox"/> Notice of Draftsman's Patent Drawing Review, PTO-948. |
| 3. <input checked="" type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449. | 4. <input type="checkbox"/> Notice of Informal Patent Application, PTO-152. |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input type="checkbox"/> _____ |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-23 are pending in the application.

Of the above, claims _____ are withdrawn from consideration.

2. ☐ Claims _____ have been cancelled.

3. ☐ Claims _____ are allowed.

4. ☒ Claims 1-23 are rejected.

5. ☐ Claims _____ are objected to.

6. ☐ Claims _____ are subject to restriction or election requirement.

7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

8. ☐ Formal drawings are required in response to this Office action.

9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).

10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).

11. ☐ The proposed drawing correction, filed _____, has been ☐ approved; ☐ disapproved (see explanation).

12. ☒ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☒ been received ☐ not been received
☐ been filed in parent application, serial no. _____; filed on _____.

13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. ☐ Other

EXAMINER'S ACTION

Part III DETAILED ACTION

Drawings

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

2. The drawings are objected to because they do not include certain reference signs mentioned in the description. 37 CFR § 1.84(f) states, "Reference signs not mentioned in the description shall not appear in the drawing and vice versa." The following reference signs are not included in the drawings: On page 8 line 10 there is reference to a light source 6B that does not appear in the drawings. On page 11 line 2 the data bus line 2 does not appear in the drawing. Correction is required.

3. The drawings are objected to as failing to comply with 37 CFR § 1.84(f) which states, "The same part of an invention appearing in more than one view of the drawing must always be designated by the same character." However, "on page 8 lines 10 element 6B" and "in fig 3 element 68" have both been used to designate the light source. Correction is required.

Claim Rejections - 35 USC § 112

4. Claims 1-17 and 23 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1 the recitation of "generating converted data by converting input data" lacks sufficient structure to perform this function.

The recitation of "transmitting means for generating...and transmitting the converting data..." recites two functions for a single means.

The "control means" is inappropriately provided with a plurality of functions. The recitations of "generating electrical signals" and "generating said horizontal synchronization signal" both lack sufficient structure to perform these functions. "A light source element" is not positively recited.

In claim 4 the recitation of "coupled to received said second clock signal" is unclear. It is not clear if the input port is coupled to the received said second clock signal or if the input port is coupled to receive said second clock signal.

In claim 5 the recitation of "externally change a characteristic of said second clock" is vague and indefinite

In claim 7 the recitation of "in dependence upon a dividing ratio component" is unclear.

In claim 12 the recitation of "in dependence upon a beam source" is unclear.

In claim 23 the recitation of "said said local clock signal" is unclear.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been

obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

6. Claims 1-23 are rejected under 35 U.S.C. § 103 as being unpatentable over Sasaki et al. in view of Nakajima. Sasaki et al. discloses all claimed features including a method and apparatus for electrophotographic developing type reproduction apparatus(col 1 lines 54-58) comprising data transmitting means for generating converted data by converting input data to be printed into video data in accordance with a first clock signal(col 3 lines 1-4), chopping means for providing chopped data by dividing the converted data from said transmitting means in accordance with a second clock signal(col 2 lines 34-39) and printing control means for providing beam data in response to said chopped data for controlling printing of the video data by generating electrical signals to control generation of light beam by a light source element(col 2 lines 34-39 and col 3 lines 1-7), the second clock signal having a frequency greater than the first clock signal(col 4 lines 4-11), a frequency of the second clock signal being an integer multiple of a frequency of the first clock signal(col 4 lines 19-22), said chopped means comprising an AND gate having a first input port coupled to received said

converted data and as second input port coupled to received said second clock signal(fig 3 elements 23, 30 and 32 and col 5 lines 17-20), a semiconductor laser device serving as the source element(col 2 lines 34-39), first means for generating a local clock signal and second means for generating said second clock signal by dividing said local clock signal in dependence upon a dividing ratio component of said input data(see fig 3), means for generating a local clock signal, first means for generating said first signal by dividing said local clock signal and second means for generating said second clock signal by dividing said local clock signal in dependence upon a dividing ratio component of said input data(col 4 lines 23-38), chopping means intermittently transmitting said serial video data during pulses of said second clock signal(col 4 lines 2-18), a component of said input data specifying a dividing ratio and means for setting a frequency exhibited by said second clock signal in dependence upon said component(col 4 lines 3-11), means for setting a frequency exhibited by said second clock signal in dependence upon said component(col 4 lines 2-22); and said chopping means dividing said converted data into a series of pulses exhibiting a pulse frequency corresponding to said frequency exhibited by said second clock signal(col 4 lines 11-23), data bus means for providing input video data and for providing dividing ratio data; clock signal generating means for generating a first clock signal and for generating a second clock signal, said second clock


signal exhibiting a characteristic depending upon said dividing ratio data; data transmitting means for converting said input video data into serial video data in response to said first clock signal(see fig 4A and col 2 lines 6-21), logic means for providing chopped video data in dependence upon said serial video data and said second clock signal(col 4 lines 3-19); printing control means for generating beam data in response to said chopped video data(col 2 lines 33-39); and beam scanning means for providing a laser beam for defining images corresponding to said beam data and for generating a beam detection signal derived from scanning of said laser beam(col 1 lines 12-33), means for generating a local clock signal and second means for generating said second clock signal by dividing a frequency of said local clock signal in dependence upon said dividing ratio data(col 4 lines 23-38), and means for generating a local clock signal exhibiting a first plurality of pulses characterized by a local frequency, first means for generating said first clock signal by dividing pulses of said local clock signal to provide a second plurality of pulses characterized by a second frequency; and second means for generating said second clock signal by dividing said pulses of said local signal in dependence upon said deciding ratio data, to provide a third plurality of pulses characterized by a third frequency established upon said dividing ratio data(col 4 lines 3-23).


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Sasaki et al. does not disclose a means for transmitting the converted data in responses to a horizontal synchronization signal exhibiting a predetermined time interval and mode selecting means enabling a user to externally change a characteristic of said second clock signal. However, Nakajima teaches the use of a horizontal synchronization signal exhibiting a predetermined time interval (abstract lines 13-16) and mode selecting means enabling a user to externally change a characteristic of said second clock signal (abstract line 16-21). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Nakajima in Sasaki et al. for the purpose of controlling the light signal of the electrophotographic device.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sterlon Mason whose telephone number is (703) 308-1216.


SRM
March 19, 1995


BENJAMIN R. FULLER
SUPERVISORY PATENT EXAMINER
ART UNIT 218